PROJECT DESCRIPTION

<u>GENERAL</u>

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) AND MD 176 (DORSEY ROAD)/8TH AVENUE IN ANNE ARUNDEL COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEADS AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR SOUTH LEG OF MD 648E. MD 648E IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA EIGHT-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE THE INTERSECTION WILL CONTINUE TO DPERATE IN A NEMA EIGHT-PHASE, FUEL-TRAFFIC-ACTUATED MODE WITH THE MD 648E APPROACHES OPERATING CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 648E. EXCLUSIVE LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND MD 176 AND WESTBOUND 8TH AVENUE. INTERSECTION LIGHTING IS PROVIDED ON THE NORTHEAST CORNER AND SOUTHEAST CORNER. INTERCONNECT RUNS TO THE NORTH TO THE SOUTH ENTRANCE TO CROMWELL FIELDS SHOPPING CENTER. AN EXISTING AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASE IS PROVIDED ACROSS THE WEST LEG OF MD 176. A NEW AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASE WILL BE PROVIDED ACROSS THE SOUTH LEG OF MD 648E.

APS MESSAGE FOR CROSSING MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) FROM MD 176 (DORSEY ROAD):

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS BALTIMORE ANNAPOLIS AT DORSEY/8TH, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) FROM 8TH AVENUE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS BALTIMORE ANNAPOLIS AT 8TH/DORSEY, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO. QUANTITY UNIT <u>DESCRIPTION</u>

9570 [UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN

- 2 EACH R10-3(1) (9"x15") "BALT ANNAP BLVD"

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: (410) 841-1019

MR. JOSEPH GECKLE ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (410) 841-1013

MR. ED RODENHIZER CHIEF, SIGNAL SHOP SECTION PHONE: (410) 787-7650

MR. MIKE STOCKER SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE) PHONE: (410) 787-7696

MR. MIKE HUBER DISTRICT UTILITY ENGINEER PHONE: (410) 841-1039

MS. CORREN JOHNSON CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630

MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS SECTION PHONE: (410) 787-7670

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

TEST PIT EXCAVATION 250 12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS

8002 FURNISH AND INSTALL BREAKAWAY PEDESTAL POLE - ANY SIZE FURNISH AND INSTALL 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS

8003 8005 REMOVE AND DISPOSE PER ASSIGNMENT

8008 30 FURNISH AND INSTALL UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED

<u>DESCRIPTION</u>

<u>UNIT</u>

8012 40 NO. 6 AWG STRANDED BARE COPPER GROUND WIRE INSTALL GROUND MOUNTED SIGN

8015 8017 10 1 INCH DIAMETER RIGID STEEL CONDUIT, SCHEDULE 40 8020 600 ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

8022 725 LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG) 8023 75 SAW CUT FOR SIGNAL (LOOP DETECTOR)

EQUIPMENT LIST "C"

ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

ITEM NO.

2002

5005

8001

8021

NONE.

600

PHASE CHART

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PHASE I + 5	← G/F	R ←G—/F	R	+G-/F	← G-/R	R	← R—	← R—	R	R/−G→	← R	← R—	R	R	DW	DW	DW	DW	ΙĄ
I + 5 CHANGE	+	5 MA`	Y CHA	NGE T	O PHA	SE I	+ 6, F	PHASE	2 +	5, OR	PHAS	E 2 +	6					•	14,
PHASE I + 6	← G-/0	← G—/0	G	R	R	R	← R—	← R—	R	R/—G→	← R—	← R—	R	R	DW	DW	DW	DW	1
I + 6 CHANGE	← Y-/Y	′ ← Y—/Y	Y	R	R	R	← R—	← R—	R	R/—Y→	← R	← R—	R	R	DW	DW	DW	DW	ጉ 女
PHASE 2 + 5	R	R	R	← G—/C	← G-/G	G	← R—	← R—	R	R	← R	← R—	R	R	W	W	DW	DW	一户
5 CHANGE	R	R	R	← Y—/G	← Y-/G	G	← R—	← R—	R	R	←- R—	← R—	R	R	W	W	DW	DW	
PHASE 2 + 6	G	G	G	G	G	G	← R—	←R—	R	R	← R	← R—	R	R	W	W	DW	DW	1
PED CLEARANCE	G	G	G	G	G	G	← R∸	← R—	R	R	← R—	← R—	R	R	FL/DW	FL/DW	DW	DW	_ →
2 + 6 CHANGE	Υ	Y	Y	Υ	Y	Υ	← R—	← R—	R	R	← R—	← R—	R	R	DW	DW	DW	DW	70-5
PHASE 3 + 7	R	R	R	R	R	R/—G→	← G—	← G—	R	R	← G—	← G—	R	R	DW	DW	DW	DW	
3 + 7 CHANGE 3 + 7 MAY CHANGE TO PHASE 4 + 7, PHASE 3 + 8, OR PHASE 4 + 8																			
PHASE 4 + 7	R .	R	R	R	R	R∕—G→	← G—	← G—	G	G	← R	← R	R	R	DW	DW	DW	DW	- 4
4 + 7 CHANGE	R	R	R	R	R	R/—Y→	← Y—	← Y—	Y	Υ	← R—	← R—	R	R	DW	DW	DW	DW	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
PHASE 3 + 8	R	R	R	R	R	R	← R—	← R—	R	R	← G—	← G—	G	G	DW	DW	DW	DW	
3 CHANGE	R	R	R	R	R	R	← R—	← R—	R	R	← -Y—	← Y—	G	G	DW	DW	DW	DW	
PHASE 4 + 8	R	R	R	R	R	R	← R—	← R—	G	G	← R—	← R	G	G	DW	DW	DW	DW	
4 + 8 CHANGE	R	R	R	R	R	R	← R—	← R—	Υ	Y	← R—	← R—	Υ	Y	DW	DW	DW	DW	
PHASE 4 + 8 ALT	R	R	R	R	R	R	←R—	← R—	G	G	← R—	← R—	G	G	DW	DW	W	W	
PED CLEARANCE	R	R	R	R	R	R	←R—	← R—	G	G	← R—	← R—	G	G	DW	DW	FL/DW	FL/DW	1 √ ₄
4 + 8 ALT CHANGE	R	R	R	R	R	R	← R—	← R—	Υ	Υ	← R—	← R—	Y	Y	DW	DW	DW	DW],
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/ ← R	FL∕ ⊀ R	FL/R	FL/R	FL/ ≺ R	FL∕ ∢ R	FL/R	FL/R	DARK	DARK	DARK	DARK	† \(\frac{1}{2} \)

WIRING DIAGRAM `------A,C,E,EC ______ i-----A,C,E,EC--A,C,E,EC <u>WIRING KEY</u> A,C,E,EC-A,B 7 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) C,D] 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) E } 2 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) D,E,EC F } STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) D,E,E A,B,C, D,E,EC EC] EXISTING CABLE BGE #509427 STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION A,B,C, D,E,EC A • B • C • GLEN BURNIE, MARYLAND

MD 648E (BALTIMORE ANNAPOLIS BOULEVARD) AT MD 176 (DORSEY ROAD)/8TH AVENUE

GEN	ERAL I	NFORMA	TION	SHE	ET
 NONE					

SCALE NONE		31, 2013 CONTRACT NO. XX5295178
DESIGNED BY	NJM	COUNTY ANNE ARUNDEL LOGMILE 121176568
CHECKED BY	BSH	T.I.M.S. NO
F.A.P. NO		T.O.D. NO
		The control of the co

SG-02 OF SG-04

SHEET NO.

OF

McCormick

509 South Exeter Street 4th Floor Baltimore, Maryland 21202 (410) 662–7400

> PLOTTED: Wednesday, July 31, 2013 AT 11:19 AM FILE: I:\5212 - tedd\28 - ada topa\design\engineering\PlanSet\Submittal 14A\MD 648E at MD 176\pSG-N001_TS816J.dgn

T,S, NO. 816J-GI